

(hereinafter referred to as “Bigo et al”) in view of newly cited Webb (U.S. Patent No. 6,384,954). Applicant respectfully submits that claims 1 and 2 would not have been rendered obvious in view of the combined references.

Independent claim 1 is directed to “[a] method for modulating a non-return to zero (NRZ) signal transmitted to a receiver utilizing alternating left side and right side filtering for adjacent channels having alternating channel spacing.” The method of claim 1 requires:

modulating channels which are to be subjected to the right side filtering
using a modulator with a positive chirp; and
modulating channels which are to be subjected to the left side filtering
using a modulator with a negative chirp.

With regard to claim 1, the Examiner asserts that Bigo discloses all of the features of the claimed invention except for “the modulator provide[s] positive and negative chirp.” However, the Examiner cites Webb as allegedly disclosing “the use of [an] optical modulator to provide positive or negative chirp.” Further, the Examiner asserts that “it would have been obvious to ... to provide chirp to the system of Bigo et al by adjusting the drive signal of the modulator as taught by Webb.” Applicant respectfully disagrees.

As discussed in the March 28, 2005 Amendment, although Bigo discloses modulating channels using Mach-Zehnder modulators, the cited reference does not teach or suggest modulating channels which are to be subjected to right side filtering using a modulator with a

positive chirp and modulating channels which are to be subjected to left side filtering using a modulator with a negative chirp. That is, although a Mach-Zehnder modulator can be utilized to provide a non-zero transient chirp, which can be positive or negative, by applying a modulated control signal to one of the electrodes and a fixed bias voltage to the other electrode, nowhere does Bigo disclose modulating with a positive chirp for the right side band and modulating with a negative chirp for the left side band.

Further, Applicant submits that the disclosure in Webb does not make up the deficiencies of Bigo. In particular, similar to Bigo, Webb neither teaches nor suggests modulating channels which are to be subjected to right side filtering using a modulator with a positive chirp and modulating channels which are to be subjected to left side filtering using a modulator with a negative chirp. Similar to Bigo, Webb simply discloses a Mach Zehnder modulator in which it is possible to affect a degree of pre-chirp (positive or negative) by altering electrode drive levels.¹ Nowhere does Webb disclose modulating channels which are to be subjected to right side filtering and channels which are to be subjected to left side filtering using different chirps (i.e.,

¹ Webb merely discloses the well-known fact that a single, specific, dual-electrode MZ device manufactured by Lucent (model no. X2624C) may be biased such that “a degree of pre-chirp (positive or negative)” is compensated for within the modulation of a single continuous wave (see Webb, col. 1, lines 1-30).

positive or negative). In fact, nowhere does Webb even mention left side channel filtering and right side channel filtering or distinguish between left and right side channel filtering.

Thus, Webb does not provide any teaching or suggestion which would motivate one of ordinary skill in the art to modify the teachings of Bigo to produce the claimed invention.

Accordingly, Applicant submits that independent claim 1, as well as dependent claim 2, should be allowable because the cited references, alone or in combination, do not teach or suggest all of the features of the claims, and one of ordinary skill in the art would not have been motivated to combine and modify the cited references to produce the claimed invention.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/054,860

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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